Application No. 10/029,534
Filed: December 21, 2001
TC Art Unit: 1732
Confirmation No.: 5871

AMENDMENT TO THE CLAIMS

1-23 (Cancelled)

24. (New) A method of manufacturing a honeycomb structure comprising the steps of:

a. providing a resin-impregnated fiber fabric having a plurality of staggered honeycomb cells formed through the entire thickness of the fiber fabric,

b. providing a plurality of expandable pegs mounted on a support plate and projecting substantially perpendicularly to a surface of the support plate, the pegs being mounted loosely on the support plate to allow a limited angular and lateral relative movement of the pegs relative to the support plate,

c. causing the pegs to simultaneously penetrate each into a respective one of the cells, each peg having a cross-section of size smaller than that of the corresponding cell,

d. causing the pegs to expand so that they fill the cells and exert pressure on the inside walls of the cells,

e. curing the resin,

f. causing the pegs to shrink, and

d. withdrawing the pegs.

25. (New) A method as claimed in claim 24, wherein, prior to said expanding step, a backing plate is applied against the fiber fabric, the backing plate having through holes in positions that correspond to the cells and to the pegs so as to hold the fiber fabric between the pegs carrying plate and the backing plate.

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26. (New) A method as claimed in claim 24, wherein the pegs are expanded by heating them.

27. (New) A method as claimed in claim 26, wherein the pegs are expanded during the step of curing the resin.

28. (New) A method as claimed in claim 26, wherein the pegs are caused to shrink by their natural cooling.

29. (New) A method as claimed in claim 24, wherein the pegs are made of silicone.

30. (New) A method as claimed in claim 24, wherein the pegs are made of metal.

31. (New) A method as claimed in claim 24, wherein the pegs are coated with an anti-adhesive layer.

32. (New) A method as claimed in claim 24, wherein the pegs consist of inflatable bladders each containing gas.

33. (New) A method as claimed in claim 24, wherein the pegs consist of inflatable bladders, and the pegs are expanded by injecting gas under pressure into each of said bladders, and the pegs are shrunk by deflating said bladders.

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34. (New) A method as claimed in claim 24, further comprising a step consisting in densifying the fiber fabric after the pegs have been shrunk and withdrawn.

35. (New) A method of manufacturing a honeycomb structure comprising the steps of:

a. providing a fiber fabric,

b. impregnating the fiber fabric with a resin,

c. making parallel cuts in a staggered configuration all through the resin impregnated fiber fabric,

d. stretching the fabric in a direction parallel to a surface thereof so as to form honeycomb cells in the positions that correspond to the cuts,

e. causing a plurality of expandable pegs to simultaneously penetrate into respective ones of the cells, each peg having a cross-section of size smaller than that of the corresponding cell,

f. causing the pegs to expand so that they fill the cells and exert pressure on the inside faces of the cells,

g. curing the resin,

h. causing the pegs to shrink, and

j. withdrawing the pegs.

36. (New) A method as claimed in claim 35, wherein the pegs are mounted on a support plate and project substantially perpendicularly from the support plate, the pegs being mounted loosely on the support plate to allow a limited angular and lateral movement of the pegs relative to the support plate.

37. (New) A method of manufacturing a honeycomb structure comprising the steps of:

a. providing a resin-impregnated fiber fabric having a plurality of staggered honeycomb cells formed through the entire thickness of the fiber fabric,

b. providing a plurality of expandable pegs mounted on a support plate and projecting substantially perpendicularly from the support plate,

c. causing the pegs to simultaneously penetrate into respective ones of the cells, each peg having a cross-section of size smaller than that of the corresponding cell,

d. applying a backing plate against the fiber fabric, the backing plate having through holes in positions that correspond to the cells and to the pegs so as to hold the fiber fabric between the support plate and the backing plate,

e. causing the pegs to expand so that they fill the cells and exert pressure on the inside walls of the cells,

f. curing the resin,

g. causing the pegs to shrink, and

h. withdrawing the pegs.